Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of the Commission's Rules	)	WT Docket No. 02-318
Concerning Airport Terminal Use Frequencies	)	RM-10184
in the 450-470 MHz Band of the Private Land	)	
Mobile Radio Services	)	

NOTICE OF PROPOSED RULEMAKING

Adopted: October 4, 2002 **Released: October 10, 2002**

Comments Date: [30 days after publication in the Federal Register]
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By the Commission:

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I. INTRODUCTION AND EXECUTIVE SUMMARY

1. In this *Notice of Proposed Rulemaking* (*NPRM*), we seek comment on revisions to the use of the Airport Terminal Use (ATU) frequencies in the 450-470 MHz Private Land Mobile Radio (PLMR) Industrial Business (I/B) Pool.[1] We find that a rulemaking proceeding is warranted to allow consideration of the issues and proposals presented in the Personal Communications Industry Association's (PCIA)[2] Petition for Rulemaking (Petition).[3] Accordingly, we grant PCIA's Petition to initiate this proceeding.

2. Specifically, this *NPRM* seeks comment on revising Section 90.35(c) of our Rules[4] regarding the ATU frequencies to:

- Delete the 3-watt total output power (TPO)[5] limit for transmitters operating on ATU mobile-only frequencies and adopt a general effective radiated power (ERP) standard.[6]

- Convert the power limit for base transmitters operating on ATU base/mobile frequencies from 20-watts TPO to 100-watts ERP.

In addition, the *NPRM* seeks comment on whether the Universal Licensing System (ULS)[7] should be modified to recognize ATU frequencies and the associated operational requirements, and if so, how.

[1] ATU frequencies encompass 40 frequency pairs in the 450-470 MHz band. *See* 47 C.F.R. § 90.35(c)(61).

[2] PCIA is an international trade association representing the interests of both commercial mobile radio service (CMRS) and private mobile radio service (PMRS) users and businesses involved in all facets of the personal communications industry. PCIA's Federation of Councils include: the Paging and Narrowband PCS Alliance, the PCS Alliance, the Mobile Wireless Communications Alliance, the Site Owners and Managers Association, and the Private System Users Alliance. In addition PCIA is the FCC-appointed frequency coordinator for the Business Radio Service, the 800 and 900 MHz Business Pools, the 800 MHz General Category frequencies, and for the 929 MHz paging frequencies. *See* Petition for Amendment of the Commission's Rules Regarding the Airport Terminal Use Frequencies, RM-10184, filed by PCIA on June 25, 2001.

[3] *See id*. We issued a *Public Notice* seeking comment on PCIA's Petition. *See Public Notice*, Consumer Information Bureau, Reference Information Center, Petitions for Rulemaking Filed, Report No. 2496 (rel. Jul. 19, 2001) (*Public Notice*). While no comments were filed in response to the *Public Notice*, PCIA supplemented it's Petition. *See* Supplement to Petition for Rulemaking, filed by Personal Communications Industry Association (PCIA), RM-10184, on May 21, 2002. Hereafter, we will refer to PCIA's Petition, as supplemented, as "Petition" or "Proposals."

[4] *See* 47 C.F.R. § 90.35(c).

[5] TPO refers to "[t]he radio frequency output power of a transmitter's final radio frequency stage as measured at the output terminal while connected to a load of the impedance recommended by the manufacturer." 47 C.F.R. § 90.7.

[6] ERP refers to "[t]he power supplied to an antenna multiplied by the relative gain of the antenna in a given direction." *Id*.

[7] In September 1998, the Commission adopted rules designed to implement the ULS. The ULS is the integrated database and automated processing system developed to facilitate electronic filing of wireless applications, receipt of licensing information, and public access to such information for all wireless radio services. *See* Biennial Regulatory Review - Amendment of Parts 0, 1, 13, 22, 24, 26, 27, 80, 87, 90, 95, 97, and 101 of the Commission's Rules to Facilitate the Development and Use of the Universal Licensing System in the Wireless Telecommunications Services, Amendment of the Amateur Service Rules to Authorize Visiting Foreign Amateur Operators to Operate Stations in the United States, WT Docket Nos. 98-20, 96-188, *Report and Order*, 13 FCC Rcd 21027 (1998).

3. We believe that revising the current power limits could enhance airport terminal communications and thereby further the public interest. We nonetheless are concerned that such rule changes may adversely impact aviation-related communications, public safety, railroad and utility (namely: energy, water and gas) communications and wireless medical telemetry service (WMTS)[8] operations. We are also concerned that such rule changes may adversely impact the operations of non-ATU I/B entities that are co-channel licensees—on a secondary basis to ATU licensees—at sites located at least 10 miles from 242 airports for which the ATU frequencies are designated.[9] Accordingly, in commencing this proceeding, we specifically urge interested parties to comment on the impact that any proposed rule changes would have on the operations of non-ATU licensees. We also seek comment on alternatives to PCIA's proposals.

II. BACKGROUND

4. In 1968, the Commission allocated 10 frequency pairs in the 450-470 MHz band for land mobile radio use at airports serving cities of 200,000 or more people.[10] The Commission designated these 10 frequency pairs for entities engaged in furnishing commercial air transportation service (or entities that provide communications services to such entities) to use for ground support operations and servicing and supplying of aircraft, *i.e.*, but not air traffic control.[11] The Commission designated these frequencies because airlines could use the same frequency at the designated airports so that aircraft could readily communicate with each existing air terminal system.[12] In 1986, the Commission replaced the population

[8] WMTS is a service we established under Part 95 of our rules to allow potentially life-critical medical telemetry equipment used in hospitals and health care facilities to transmit patient measurement data to a nearby receiver to operate on a interference protected basis. *See* Amendment of Parts 2 and 95 of the Commission's Rules to Create a Wireless Medical Telemetry Service, ET Docket No. 99-255, PR Docket 92-235, *Report and Order*, 15 FCC Rcd 11206 (2000) (*WMTS Order*), *supra* notes 62-64

[9] *See* 47 C.F.R. § 90.35(c)(61)(iv).

[10] *See* Amendment of Parts 89, 91, 93, and 95 (Formerly 10, 11, 16, and 19) of the Commission's Rules to Reduce the Separation Between the Assignable Frequencies in the 450-470 Mc/s Band; Amendment of Parts 2, 87 (Formerly 9), 89, 91, 93, 95, and 21 of the Commission's Rules to Reallocate Frequencies in the 460-470 Mc/s Band and to Make Additional Frequencies Available for Assignment in the 450-470 Mc/s Band; Amendment of Parts 89, 91, and 93 of the Commission's Rules to Prohibit the Use of Frequencies in the 450-470 Mc/s Band by Fixed Stations Other than Control Stations Used for the Secondary Control of Mobile Relay Stations; Amendment of Parts 2 and 11 of the Commission's Rules to Establish an Industrial Protection Radio Service by Allocating to it Certain Frequencies in the 450-470 Mc/s Band, and to Provide for Specific Rules to Govern Operations in that Service; Amendment of Part 2 of the Commission's Rules and Regulations; Reallocation of Certain Fixed, Land Mobile, and Maritime Mobile Bands Between 25 and 470 Mc/s; Amendment of Part 11, Rules Governing the Industrial Radio Services, to Delete, Modify, and Create Services, and to Effect Changes in the Availability of Frequencies; Complete Revision of Part 19, Rules Governing the Citizens Radio Service, and Reallocation of Frequencies in the Range 26.96-27.23 Mc/s From the Amateur Radio Service (Part 12) to the Citizens Radio Service, Docket Nos. 13847, 11959, 11991, 11994, *Second Report and Order*, 11 FCC 2d 648, 655 ¶ 20 (1968) (*1968 ATU Report and Order*).

[11] *Id*. Under our current rules, these frequencies are available for assignment to persons furnishing commercial air transportation service and to an entity furnishing radio communications service to persons so engaged, for stations located on or near the airports listed in paragraph (c)(61)(iv) of this section. 47 C.F.R. § 90.35(c)(61)(i) (*citing* 47 C.F.R. §§ 90.35(c)(61)(iv); 90.179). Stations will be authorized on a primary basis and may be used only in connection with the servicing and supplying of aircraft. *Id*.

[12] *See 1968 ATU Report and Order*, 11 FCC 2d at 655 ¶ 20.

criteria with a definitive list of 160 ATU airports and reference coordinates.[13] In 1995, as a result of the Commission's "channel spacing" decisions in the *Refarming Proceeding*,[14] the number of ATU frequency pairs increased to forty pairs as follows: the original 10 pairs with 25 kHz frequencies, 10 pairs with 12.5 kHz frequencies, and 20 pairs with 6.25 kHz frequencies.[15] Presently, ATU frequencies are available for primary air terminal communications and for secondary I/B operations under the same power limitations adopted in 1968 and 1986, respectively. Earlier this year, we revised Section 90.35(c)(61) of our Rules by, *inter alia*, adding the names of 82 airports to the ATU list to reflect increased air travel and shifting population patterns since 1986.[16] As a result, our Rules envision protecting ATU communications at 242 airports from interference caused by secondary I/B users.[17]

5. In the Petition, PCIA, an FCC-certified frequency coordinator, proposes that we initiate a rulemaking proceeding to revise Sections 90.35(c)(11), (48) and (68) of our Rules, which currently govern the specific power limits on ATU frequencies.[18] PCIA contends that granting its request would be consistent with the Commission's long-standing policy of protecting airport communications on these frequencies.[19] In the Petition, PCIA notes the development of larger airport facilities with increasing numbers of cargo handlers and other support personnel.[20] PCIA states that the existing TPO restrictions on ATU operations seriously hamper the effectiveness of such airport operations because the vast distances and underground facilities for which airport personnel are responsible, often are beyond the limits established by the TPO requirements.[21] PCIA further recommends that our Part 90 rules express power limits in terms of ERP, rather than TPO, and that we add a new licensing code to distinguish primary ATU licensees from secondary I/B licensees on the ULS. We discuss these and other issues below.

[13] Amendment of Part 90 of the Commission's Rules to Relax Restrictions on Certain Frequencies in the Business Radio Service, PR Docket No. 85-273, *Report and Order*, 60 Rad. Reg. 2d (P&F) 379, 382 ¶ 11 (1986) (*1986 ATU Report and Order*).

[14] In the *Refarming Proceeding*, the Commission adopted a channelization plan based on narrowband (NB) channel spacing. Under this plan the Commission lists channels every 6.25 kHz in the 450-470 MHz band, which provides users with the option of utilizing equipment designed to operate with 6.25, 12.5, or 25 kHz channel bandwidths. *See* Replacement of Part 90 by Part 88 to revise the Private Land Mobile Radio Services and Modify the Policies Governing Them, PR Docket No. 92-235, *Report and Order and Further Notice of Proposed Rulemaking*, 10 FCC Rcd 10076, 10092 ¶ 24 (1995), *Memorandum Opinion and Order*, 11 FCC Rcd 17676 (1996), and *Second Report and Order* 12 FCC Rcd 14307 (1997) (*Refarming Proceeding*).

[15] *Id*.

[16] *See* 1998 Biennial Regulatory Review – 47 C.F.R. Part 90 – Private Land Mobile Radio Services, WT Docket No. 98-182, RM-9222, *Memorandum Opinion and Order and Second Report and Order*, 17 FCC Rcd 9830, 9853 ¶ 49 (2002) (*Part 90 Biennial Review MO&O and 2R&O*).

[17] We note that the rule revisions adopted in the *Part 90 Biennial Review MO&O and 2R&O*, have yet to become effective.

[18] Petition at 4, *citing* 47 C.F.R. §§ 90.35(c)(11), (48), (68).

[19] *Id*. at 2.

[20] *Id*. at 3.

[21] *Id*. *Compare with* PCIA Comments on *Notice of Proposed Rulemaking*, WT Docket No. 98-182, RM-9222 at 10-11 (filed Jan. 19, 1999). *See Part 90 Biennial Review MO&O and 2R&O*, note 15 *supra*.

III. DISCUSSION

A. Power Limit for Mobile-only ATU Frequencies (465 MHz side of each pair)

6. In 1968, the Commission limited the maximum TPO for ATU mobile stations to three watts.[22] The Commission also permitted base stations to operate on ATU mobile-only frequencies with a maximum TPO of three watts.[23] The Commission found Aeronautical Radio Inc.'s (ARINC)[24] suggestion to limit ATU mobile stations to a maximum 3-watt TPO to be reasonable and therefore incorporated this suggestion into the Rules.[25] Presently, transmitters operating on the "upper," *i.e.*, 465 MHz, side of ATU frequency pairs are licensed as mobile stations, limited to a 3-watt TPO and allowed to provide the functions of a base station on a secondary basis to mobile operations.[26]

7. PCIA proposes that we delete the three watt TPO limit on ATU mobiles. PCIA also proposes that we delete the 2-watt limit on mobile frequencies, which, if we deleted the three watt limit, would apply to ATU mobiles.[27] In this regard, PCIA contends that three watt mobiles cannot communicate with other mobiles or associated repeaters[28] over large distances or through underground facilities.[29] Furthermore, PCIA states that communication is similarly hampered when the 3-watt mobiles attempt to function as base stations to their associated repeaters.[30] We seek comment on PCIA's proposal to delete the 3-watt TPO limitation. Specifically, we seek comment on whether the current 3-watt power limit hampers air terminal communications. In this regard, we seek comment on PCIA's suggestion that the 3-watt TPO limit hampers air terminal communications at the Dallas-Forth Worth airport facility, which PCIA states is over 10 miles across in distance and where the responsibilities of airline employees include accessing underground facilities.[31] We also seek comment on the problems described by PCIA and on how often these problems occur at airports protected under our rules. In addition, we ask commenters to provide specific examples of how the existing power limits have had a negative impact on air terminal communications.

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[22] *See 1968 ATU Report and Order*, 11 FCC 2d at 655 ¶ 20.

[23] *Id*.

[24] ARINC is the communications company of the air transport industry and has provided and coordinated the communications requirements of that industry since 1929. *See* ARINC Comments on *Notice of Proposed Rulemaking*, WT Docket No. 99-87, RM-9332, RM-9405 (filed Aug. 2, 1999) at 1-2. ARINC, through its Aeronautical Frequency Committee (AFC), has assisted the air transport industry in meeting that industry's need for land mobile radio communications at the nation's airports. *Id*.

[25] *See 1968 ATU Report and Order*, 11 FCC 2d at 655 ¶ 20.

[26] *See* 47 C.F.R. § 90.35(c)(68).

[27] *See* 47 C.F.R. § 90.35(c)(11).

[28] "Repeaters" or "mobile relay stations" are base stations in the mobile service authorized to retransmit automatically, on a mobile service frequency, communications which originate on the transmitting frequency of a mobile station. *See* 47 C.F.R. § 90.7.

[29] PCIA states that repeaters at airport terminals are usually mounted on top of one of the terminals, or one of the hangers. Petition at 3 n.9.

[30] Supplement at 2. PCIA adds, however, that this issue is sometimes more easily resolved by alternative means, such as using a wireline connection between a mobile that is used as a base and the repeater. *Id.*

[31] Petition at 3.

8. Finally, we seek comment on alternatives that would improve the communications capabilities of mobiles on the ATU frequencies, such as signal boosters[32] and wireline connections. In this connection, we seek comment on whether signal boosters would adequately address the problems identified by PCIA.[33] We note that ATU licensees, without separate authorization, may use signal boosters to amplify base and mobile station signals at confined or indoor areas such as buildings, tunnels, and underground areas or other areas where there is little or no risk of interference to other users.[34] We also seek comment on using a wireline connection between ATU mobiles that function as base stations on the upper ATU frequencies and repeaters to resolve any apparent problem caused by the 3-watt TPO limit. In addition, we seek comment on whether the problems identified by PCIA are best addressed by considering, on a case-by-case basis, requests for waiver of Section 90.35(c)(68) (3-watt TPO) of the Commission's rules to permit appropriate increases in power levels for ATU operations on the upper ATU frequencies.

B. Power Limit for Base/Mobile ATU Frequencies (460 MHz side of each pair)

9. In 1968, the Commission limited the maximum TPO to twenty watts for ATU base stations.[35] The Commission found ARINC's suggestion to limit ATU base stations to a 20-watt maximum TPO to be reasonable and therefore incorporated this suggestion into the Rules.[36] In 1986, the Commission clarified that the 20-watt limitation applies to air terminal facilities.[37] Presently, base stations operating on the "lower," *i.e.*, 460 MHz, side of ATU frequency pairs are limited to a 20-watt TPO and may be used for base or mobile operations.[38]

10. PCIA proposes that we eliminate the maximum TPO restrictions on air terminal operations and that we instead use the standard 100-watt ERP limit reflected in Table 2 of Section 90.205 of our Rules.[39] PCIA states that it does not wish to advocate arbitrarily increasing permissible power to a

[32] Signal booster refers to a device at a fixed location, which automatically receives, amplifies, and retransmits on a one-way or two-way basis, the signals received from base, fixed, mobile and portable stations, with no change in frequency or authorized bandwidth. *See* 47 C.F.R. § 90.7.

[33] Signal boosters have proven to be a viable and practical way to resolve signal coverage problems caused by natural or man-made obstacles thereby allowing licensees to make maximum use of radio systems. *See* Amendments of Parts 22, 90, and 94 of the Commission's Rules to Permit Routine Use of Signal Boosters, WT Docket No. 95-70, *Notice of Proposed Rulemaking*, 10 FCC Rcd at 6681 ¶ 5 (1995); 47 C.F.R. Parts 22, 90 and 94.

[34] *See* 47 C.F.R. § 90.219(d). In 1971, the Commission permitted signal boosters to amplify airport base stations, while adopting certain power limits designed to adequately restrict and guard against harmful interference to other users. *See* Amendment of Part 91 of the Commission's Rules to Permit Signal Boosters on Frequencies Allocated for Air Terminal Use, Docket No. 18626, *Report and Order*, 28 FCC 2d 479, 21 Rad. Reg. (P&F) 1706 ¶ 5 (1971). Prior to 1996, signal boosters could only be used by air terminal operations. In 1996, the Commission expanded the use of signal boosters to all Part 90 eligibles. *See* Amendments of Parts 22, 90, and 94 of the Commission's Rules to Permit Routine Use of Signal Boosters, WT Docket No. 95-70, *Report and Order*, 11 FCC Rcd 16621 (1996).

[35] *See 1968 ATU Report and Order*, 11 FCC 2d at 655 ¶ 20.

[36] *Id*.

[37] *See 1986 ATU Report and Order*, 60 Rad. Reg. 2d (P&F) at 383 ¶ 14.

[38] 47 C.F.R. § 90.35(c)(48).

[39] Petition at 4 citing 47 C.F.R. § 90.205 Table 2. Table 2 was adopted in the *Refarming Proceeding*, 10 FCC Rcd at 10112 ¶¶ 69-73, *modified by Memorandum Opinion and Order*, 11 FCC Rcd at 17689-92 ¶¶ 27-34.

point which would unnecessarily cause interference to non-ATU operations. PCIA nonetheless contends that airport authorities are increasingly restricting permissible antenna locations at airports and asking for as much co-location as possible.[40] PCIA asserts that the existing power limits are confusing and inconsistent with other Commission rules governing these frequencies.[41] PCIA therefore contends that an ERP standard would be a more effective methodology for defining how systems can be utilized in this particular shared radio environment.[42]

11. We concur with PCIA's suggestion that ERP limits more precisely reflect the actual operating power of the radio system given that they measure the TPO plus antenna gain minus any loss factors.[43] We also generally concur with PCIA that utilization of TPO limits can lead to a variety of ERP levels; and, thus, that utilization of ERP may result in a more efficient and effective frequency coordination process.[44] In this connection, we note that the use of gain-adding antennas with mobiles is allowed in the 450-470 MHz band.[45] Consequently, higher-gain antennas can be installed for base/fixed operations as compared to mobile/portable antennas. For example, a 6 db gain antenna, could be installed with a 20-watt TPO base station, which could produce an ERP of over 80-watts. Alternatively, a 15 db gain antenna could be installed with a 20-watt TPO base station, which could produce an ERP of over 300 watts.[46] We therefore seek comment on whether we should adopt an ERP standard for all ATU operations or just base/fixed operations.

12. Section 90.205 of our Rules permits applicants for frequencies in the 450-470 MHz band to request a 100-watt ERP and a 15-meter antenna height for a 5-mile (8 kilometer) service area radius—without special justification—provided the proposed base station complies with certain technical requirements.[47] Moreover, under special circumstances, applicants may deviate from the ERP and antenna height limits in Table 2, provided their applications are accompanied by evidence of frequency coordination and a technical analysis that the requested station parameters will not produce a signal strength in excess of 39 dBu.[48] We seek comment on whether an ERP limitation of up to 100 watts, as suggested by PCIA, would allow for adequate service on airport facilities.[49] Additionally, we ask commenters to discuss whether a 100-watt ERP is a reasonable conversion from the existing 20-watt TPO limit? If so, should we automatically convert all ATU base authorizations from 20 watts TPO to 100 watts ERP.[50] Commenters should address the advantages and disadvantages associated with

[40] Supplement at 2.

[41] Petition at 3.

[42] Supplement at 2.

[43] *Id*. *See* Amendment of Part 90 of the Commission's Rules and Policies for Applications and Licensing of Low Power Operations in the Private Land Mobile Radio 450-470 MHZ Band, WT Docket No. 01-146, *Notice of Proposed Rulemaking*, 16 FCC Rcd 14946, 14951 ¶ 10 (2001) (*Low Power Plan NPRM*).

[44] *Low Power Plan NPRM*, 16 FCC Rcd 14951 ¶ 10.

[45] *Id*.

[46] *Id*. at 14592 ¶ 11.

[47] *See* 47 C.F.R. § 90.205(a), (g)(1).

[48] *See* 47 C.F.R. § 90.205(g)(2).

[49] Supplement at 2.

[50] *See* para. 16, *infra.*

implementing PCIA's proposal, including identification of any costs to primary or secondary users (such as frequency coordination fees).

13. We seek comment on alternatives to PCIA's Proposals that address the problems that PCIA identifies. We also invite comment on whether to maintain the TPO restriction on the lower side of the ATU frequencies while increasing the 3-watt TPO limit on the upper side of the ATU frequencies.[51] For example, would increasing the 3-watt power limit to 5-watts TPO be adequate to enable ATU mobile stations to effectively communicate with other ATU mobile and repeater stations, while still being sufficiently restrictive to guard against harmful interference to other users? Moreover, we invite commenters to suggest specific alternatives to PCIA's Proposals including any specific rule changes needed to meet homeland security needs at airports. Commenters that offer alternatives are urged to address the interference issues raised in paragraphs 15 and 16 below.

C. Industrial/Business Operations Licensed on Secondary Basis

14. In light of the relatively low power limits set for ATU operations in 1968, the Commission also decided that non-ATU operations could be licensed on a co-channeled basis — for up to two watts — at locations more than five miles (eight kilometers) from the boundaries of airports that served cities with a population over 200,000.[52] In addition, the Commission permitted "normal use" of these 10 frequency pairs by Business Radio Service eligibles located 75 miles (120 kilometers) or more from the borders of the designated airports.[53] In 1986, the Commission revised the power and distance restrictions for licensing non-ATU operations. The Commission permitted 2-watt operations within the confines of industrial complexes or manufacturing yards[54] that are located ten miles (sixteen kilometers) or more from ATU airports,[55] and 300-watt ERP operations are permitted at locations fifty miles (eighty kilometers) or more from ATU airports.[56] The rules adopted in the *1986 ATU Report and Order* also specified that non-ATU authorizations that operate on the ATU frequencies are secondary[57] to ATU operations.[58] While Business Radio Service and low power stations licensed prior to April 17, 1986 were grandfathered and permitted to continue to operate with facilities authorized as of that date, certain license modifications would be subject to the distance and power requirements adopted in the *1986 ATU Report and Order*.[59]

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[51] *Accord*, *supra* note 18 (identifying the 3-watt TPO limit on mobile stations as hampering airport communications at large airports and airports with underground facilities).

[52] *See 1968 ATU Report and Order*, 11 FCC 2d at 655 ¶ 21. The Commission reserved the 10 frequency pairs for airports located in or near urbanized areas of 200,000 or more population. *Id.*

[53] *Id*.

[54] *See 1986 ATU Report and Order*, 60 Rad. Reg. 2d (P&F) at 382-83 ¶ 13.

[55] *Id*. at 382 ¶ 11 (adopting a list of airports at which air terminal communications enjoy interference protection). *See* 47 C.F.R. § 90.35(c)(61).

[56] *See 1986 ATU Report and Order*, 60 Rad. Reg. 2d (P&F) at 381-82 ¶ 8.

[57] Secondary operations may not cause interference to operations authorized on a primary basis and which are not protected from interference from those primary operations. *See* 47 C.F.R. § 90.7.

[58] *See 1986 ATU Report and Order*, 60 Rad. Reg. 2d (P&F) at 381-83 ¶¶ 8, 13.

[59] *Id*.

15. We seek comment on the impact that PCIA's Proposals would have on other Commission licensees, including secondary users. Commenters should address whether granting PCIA's proposal would have an adverse impact on aviation-related communications, including the Aviation Radio Service, which is an internationally-allocated family of radio services designed to enhance and protect the safety of life and property in air navigation.[60] For example, would a 100-watt ERP limit for ATU base stations or revising the ATU mobile power limits adversely impact air-ground communications regarding the operational control of aircraft? We also ask commenters to address whether adopting any of PCIA's Proposals would have a negative impact on public safety or other non-ATU operations near airports.[61] Moreover, we specifically request comment as to whether adopting PCIA's proposal would cause harmful interference to WMTS operations. We note that Section 90.35(c)(69) of our Rules permits medical telemetry equipment to operate on certain ATU frequencies in the 460-470 MHz band and on a secondary basis, *i.e.*, no interference protection, to ATU users operating on these frequencies.[62] Nonetheless, we seek comment as to any measures that may be necessary to ensure that WMTS operations near ATU airports are not exposed to an increased risk of interference should we adopt PCIA's Proposals.[63] We tentatively conclude that any increase in the power limitations for ATU operations on WMTS frequencies, *i.e.,* frequencies governed by Section 90.35(c)(69) of our Rules, would not be effective until after October 16, 2003, which is the scheduled date for the lifting of the freeze on high-power land mobile radio applications in the 460-470 MHz band.[64] We believe this date is appropriate because it would be consistent with the lifting of the freeze and the Commission's intent to facilitate an interference-free WMTS transition from the 460-470 MHz band to other bands.[65] We seek comment on the appropriate date to permit a power increase on ATU frequencies used by WMTS licensees.

16. We also seek comment on any measures that would minimize any adverse impact on other (non-WMTS) I/B users. For example, we seek comment on any measures that would minimize any

[60] We note that there is an ongoing rulemaking proceeding concerning consolidating, revising, and streamlining our Part 87 rules governing the Aviation Radio Service. Review of Part 87 of the Commission's Rules Concerning the Aviation Radio Service, WT Docket No. 01-289, *Notice of Proposed Rulemaking*, 16 FCC Rcd 19005 (2001).

[61] *See, e.g.*, Polk County, *Order*, 16 FCC Rcd 15337 (WTB PSPWD 2001) (affirming denial of request for waiver of Section 90.205 to increase applicable ERP limits because of potential interference to neighboring airport and county land mobile operations).

[62] *See* 47 C.F.R. § 90.35(c)(69). Ten ATU frequency pairs (12.5 kHz frequencies) are also governed by Section 90.35(c)(69), which provides that such frequencies may be used on a secondary basis by a hospital or health care institution holding a license to operate a medical radio telemetry device with an output power not to exceed twenty milliwatts without specific authorization from the Commission. *Id*. ATU frequencies governed by Sections 90.35(c)(61) and (69) are as follows: 460/465.6625 MHz, 460/465.6875 MHz, 460/465.7125 MHz, 460/465.7375 MHz, 460/465.7625 MHz, 460/465.7875 MHz, 460/465.8125 MHz, 460/465.8375 MHz, 460/465.8625 MHz, 460/465.8875 MHz. *See* 47 C.F.R. §§ 90.35(c)(61), (69).

[63] The Commission has noted that medical telemetry has no legal protection from interference in the current bands, including the 450-470 MHz band, because it is authorized on a secondary basis; however, "the fact remains that the Commission has had to take steps to protect medical telemetry from interference because it is used to protect safety of life." *See WMTS Order*, 15 FCC Rcd at 11225 ¶ 57.

[64] The Commission allocated fourteen MHz of spectrum for WMTS primary use after concluding that changes to Part 90 rules increased the likelihood of interference to WMTS operations. *Id*. at 11206-7 ¶¶ 2-4. In making this allocation, the Commission's goal was to provide spectrum where medical telemetry equipment can operate without interference, but also to encourage medical telemetry users to eventually migrate out of the current bands, including the 450-470 MHz band. *See id*. at 11225 ¶ 57.

[65] *See id.* at 11227-28 ¶ 65; 65 FR 43995, 43999 ¶ 34 (Jul. 17, 2000).

adverse impact on other secondary users that are located (1) between ten and fifty miles from airports[66] and (2) more than fifty miles from protected airports,[67] as well as secondary fixed stations[68] and non-WMTS telemetry operations.[69] Specifically, should we increase the 2-watt TPO limit that currently governs secondary I/B users that operate within the confines of industrial complexes or manufacturing yards located between ten and fifty miles from protected airports? Alternatively, would doing so result in an unacceptable increase in the potential for harmful interference to primary airport users? We also seek comment on whether PCIA's Proposals would impact our 1986 decision to grandfather I/B users (1) located seventy-five miles or more from protected airports and (2) then existing low power users.[70] For example, should we increase the power limitations on these grandfathered operations? Commenters should address what obligations licensees would have in the event interference occurred. Commenters also should address costs to primary and secondary users, including frequency coordination costs, modification applications and application fees associated with implementation of PCIA's Proposals. We ask commenters to address whether licensees would have to file modification applications to conform their authorized parameters to the new standard, if we were to adopt an ERP standard. Alternatively, could and should the Commission modify all affected licenses pursuant to the "public interest, convenience, and necessity" provision in Section 316 of the Communications Act of 1934, as amended?[71] We also seek comment on whether PCIA's Proposals would best meet any potential homeland security needs. We ask commenters to identify other rules we should modify if we adopt PCIA's Proposals.

D. Status of Non-Compliant Authorizations

17. PCIA states that, prior to the Commission's implementation of the Universal Licensing System (ULS) for the Wireless Services, the ATU power limits were "typically ignored" and that our database is "replete with ATU licenses for additional power."[72] PCIA adds that after implementation,

[66] *See* 47 C.F.R. § 90.35(c)(61)(iii).

[67] *See* 47 C.F.R. § 90.35(c)(61)(ii).

[68] Secondary fixed operations may be authorized on ATU frequencies. *See* 47 C.F.R. §§ 90.35(c)(62), 90.261.

[69] Secondary telemetry operations may by authorized on ATU frequencies that are available for WMTS operations. *See* 47 C.F.R. §§ 90.35(c)(30), 90.238(e), n.58, *supra*.

[70] *See 1986 ATU Report and Order*, 60 Rad. Reg. 2d (P&F) at 381-83 ¶¶ 8, 13.

[71] *See* 47 U.S.C. § 316. While the Commission has determined that Section 9 of the Communications Act, 47 U.S.C. § 159, did not allow "blanket" fee waivers and that waiver requests could be considered only on a "per application" basis, the Commission has noted that licensees relocating from 800 MHz channels would not have to file a modification application - and hence would not have to pay an application fee - if the Commission were to modify their licenses pursuant to the "public interest, convenience, and necessity" provision in Section 316 of the Act. *See* Improving Public Safety Communications in the 800 MHz Band, WT Docket No. 02-55, *Notice of Proposed Rulemaking*, 17 FCC Rcd 4873, 48 ¶ 67 (2002). For example, in the DEMS Proceeding, the Commission directed the Wireless Telecommunications Bureau to issue new licenses, specifying new frequencies, for DEMS licensees that were required to relocate from the 18 GHz band to the 24 GHz band. *See* Amendment of the Commission's Rules to Relocate the Digital Electronic Message Service From the 18 GHz Band to the 24 GHz Band and to Allocate the 24 GHz Band for Fixed Service, *Order*, 12 FCC Rcd 8266 (1997). No modification applications were required and no application fees were paid.

[72] Petition at 4. PCIA states that the Commission staff, prior to ULS implementation, had a pattern of granting licenses, albeit accidentally, for mobile outputs greater than three watts. Supplement at 3. PCIA cites the following call signs as examples of authorizations granted without a waiver and inconsistent with our current power limits: WQV585, KML555, KFJ292, WPHM432, WYY771, KND269, KNIY931, KNIY932, KQO519, and KQV249. *Id*. at 3, n.3. PCIA states that it is not aware of any cases of interference reported to date. *Id*.

"ULS requires that the output requirement be addressed by each applicant for a new license, a modification or a renewal thereof because the ULS system automatically rejects applications [that are] not in strict accordance with each and every rule section."[73]

18. Therefore, we also seek comment on whether we should grandfather or modify such authorizations.[74] Commenters who propose to modify such authorizations, should address whether licensees should be afforded hearing or protest rights under Section 316 of the Communications Act. Commenters should also address the issue of application fees identified in paragraph 16 *supra*.

E. Station Class Code

19. Currently, the ULS does not distinguish between primary and secondary users of ATU frequencies. Instead, the ULS characterizes all applicants for the relevant frequencies as I/B licensees. PCIA asserts that compliance with Sections 90.35(c)(61)(ii) and (iii) is difficult because applicants cannot classify themselves as I/B for secondary use or as an ATU eligible.[75]

20. PCIA proposes that we develop class codes to identify primary and secondary users on ATU frequencies.[76] PCIA contends that the ULS does not provide for a separate class code for ATU frequencies.[77] PCIA submits that it understands that the Commission has not implemented the editing function on ULS pertaining to this issue; rather we rely on PLMR frequency coordinators to ensure that applicant's proposals are consistent with the applicable limitations.[78] PCIA offers to work with the Commission to provide the proper coding in the ULS system to ensure that ATU eligible applications will not be rejected for failure to comply with Section 90.35(c)(61)(ii) or (iii).[79] We seek comment on the issues raised by PCIA concerning class codes and whether the use of such codes would improve processing of applications for ATU frequencies.[80] We ask commenters to address alternatives to PCIA's station class code proposal, including whether we should add a letter code to the end of the station class code similar to what we have done with respect to itinerant and interconnect operations (*i.e.*, MOI or FB2C).

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[73] *Id.* Relative to PCIA's statement that the Commission's staff "typically ignored these power limitation rules," Petition at 4, we note that applications for ATU frequencies are subject to frequency coordination, 47 C.F.R. § 90.175. We disagree with this characterization. We also note that all certified PLMR frequency coordinators, including PCIA, have a responsibility to ensure that the applications which they coordinate are compliant with the Commission's rules, particularly those pertaining to operational and technical parameters.

[74] *See e.g.*, Columbia Communications, Inc., *Order of Modification*, 14 FCC Rcd 13972 (1999) (modifying license that was authorized to operate on frequency 460.725 MHz in excess of the 20-watt TPO limitation imposed by 47 C.F.R. § 90.35(c)(48)). *See also e.g.*, Black Diamond Asphalt, *Order on Reconsideration*, 14 FCC Rcd 13974 ¶ 8 (1999).

[75] Petition at 4, n.10.

[76] *Id*.

[77] *Id*.

[78] *Id*.

[79] *Id*.

[80] *Id*.

IV. PROCEDURAL MATTERS

A. Ex Parte Rule – Permit-but-Disclose Proceeding

21. This is a permit-but-disclose notice and comment rulemaking proceeding. *Ex parte* presentations are permitted, except during the Sunshine Agenda period, if they are disclosed as provided in the Commission's Rules.[81]

B. Initial Regulatory Flexibility Analysis

22. As required by Section 603 of the Regulatory Flexibility Act, 5 U.S.C. § 603, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the expected impact on small entities of the proposals suggested in this document. The IRFA is set forth in Appendix A. Written public comments are requested on the IRFA. These comments must be filed in accordance with the same filing deadlines as comments filed in this *NPRM*, but they must have a separate and distinct heading designating them as responses to the IRFA. The Commission's Consumer Information Bureau, Reference Information Center, SHALL SEND a copy of this *NPRM*, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration in accordance with Section 603(a) of the Regulatory Flexibility Act, 5 U.S.C. § 603(a).

C. Initial Paperwork Reduction Analysis

23. This *NPRM* does not contain either a proposed or modified information collection.

D. Alternative Formats

Alternative formats (computer diskette, large print, audio cassette and Braille) are available from Brian Millin, Consumer and Governmental Affairs Bureau, at (202) 418-7426, TTY (202) 418-7365, or at bmillin@fcc.gov. This *NPRM* can also be downloaded at http://wireless.fcc.gov/releases.html.

E. Comment Dates

24. Pursuant to Sections 1.415 and 1.419 of our rules[82] interested parties may file comments on or before [**30 days from date of publication in the Federal Register**], and reply comments on or before [**45 days from date of publication in the Federal Register**]. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies.[83]

25. Comments filed through the ECFS can be sent as an electronic file via the Internet to <http://www.fcc.gov/e-file/ecfs.html>. Generally, only one copy of an electronic submission must be filed. If multiple docket or rulemaking numbers appear in the caption of this proceeding, however, commenters must transmit one electronic copy of the comments to each docket or rulemaking number referenced in the caption. In completing the transmittal screen, commenters should include their full name, U.S. Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To obtain filing instructions for e-mail comments, commenters should send an e-mail to ecfs@fcc.gov, and should include the following words in the body of the message, "get form <your e-mail address>." A sample form and directions will be sent in reply. Parties who choose to file by paper must file an original and four copies of each filing. If more than one

[81] *See generally* 47 C.F.R. §§ 1.1200(a), 1.1203, 1.1206.

[82] *See* 47 C.F.R. §§ 1.415, 1.419.

[83] *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 Fed. Reg. 24121 (1998).

docket or rulemaking number appear in the caption of this proceeding, commenters must submit two additional copies for each additional docket or rulemaking number. Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although we continue to experience delays in receiving U.S. Postal Service mail). The Commission's contractor, Vistronix, Inc., will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 236 Massachusetts Avenue, N.E., Suite 110, Washington, D.C. 20002. The filing hours at this location are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building. Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743. U.S. Postal Service first-class mail, Express Mail, and Priority Mail should be addressed to 445 12th Street, SW, Washington, D.C. 20554. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

F. Contact Information

26. For further information, contact John Evanoff, Esq., at (202) 418-0848, jevanoff@fcc.gov, or Thomas Eng, (202) 418-0019, teng@fcc.gov, Policy and Rules Branch, Public Safety and Private Wireless Division, Wireless Telecommunications Bureau.

V. ORDERING CLAUSES

27. Accordingly, IT IS ORDERED that, pursuant to Sections 1, 4(i), 302, 303(f) and (r), and 332 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 1, 154(i), 302, 303(f) and (r), 332, the Petition for Rulemaking filed by the Personal Communications Industry Association, Inc., on June 25, 2001, and supplemented on May 21, 2002, is GRANTED to the extent indicated herein.

28. IT IS FURTHER ORDERED that, pursuant to Sections 1, 4(i), 302, 303(f) and (r), and 332 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 1, 154(i), 302, 303(f) and (r), 332, NOTICE IS HEREBY GIVEN of the proposed regulatory changes described in this *Notice of Proposed Rule Making*, and that COMMENT IS SOUGHT on these proposals.

29. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this *Notice of Proposed Rule Making*, WT Docket No. 02-318, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration in accordance with Section 603(a) of the Regulatory Flexibility Act, 5 U.S.C. §§ 601-612.[84]

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

[84] Pub. L. No. 96-354, 94 Stat. 1165, 5 U.S.C. §§ 601-612 (1980).

APPENDIX A

INITIAL REGULATORY FLEXIBILITY ANALYSIS

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),[85] the Commission has prepared this present Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in this *NPRM*. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the *NPRM* provided in paragraph 23, *supra*. The Commission will send a copy of the *NPRM*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).[86] In addition, the *NPRM* and IRFA (or summaries thereof) will be published in the Federal Register.[87]

A. Need for, and Objectives of, the Proposed Rules

2. In this *NPRM*, we propose to amend the maximum output power for airport terminal use frequencies identified in 47 C.F.R. § 90.35(c)(48) to 100-watts maximum effective radiated power. We believe such modification would be in the public interest because it would enhance the efficient use of spectrum, permit greater efficiency in use of airport terminal communications, and facilitate Homeland Security measures at airports. In this *NPRM* we also propose to delete the maximum output power for airport use frequencies identified in 47 C.F.R. § 90.35(c)(11) and (68).

B. Legal Basis

3. Authority for the proposed rules included in this *NPRM* is contained in Sections 1, 4(i), 302, 303(f), and (r), and 332 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 1, 154(i), 302, 303(f) and (r), and 332.

C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply

4. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.[88] The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[89] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[90] A "small business

[85] *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601 – 612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

[86] *See* 5 U.S.C. § 603(a).

[87] *Id*.

[88] 5 U.S.C. § 603(b)(3).

[89] 5 U.S.C. § 601(6).

[90] 5 U.S.C. § 601(3) (incorporating by reference the definition of "small-business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

concern" is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.[91] Nationwide, as of 1992, there were approximately 275,801 small organizations.[92] Below, we further describe and estimate the number of small entity licensees and regulatees that may be affected by the proposed rules, if adopted.

5. *Estimates for Private Land Mobile Radio (PLMR) Licensees.* PLMR systems serve an essential role in a vast range of industrial, business, land transportation, and public safety activities. These radios are used by companies of all sizes operating in all U.S. business categories. Because of the vast array of PLMR users, the Commission has not developed a definition of small entities specifically applicable to PLMR users, nor has the SBA developed any such definition. The SBA rules do, however, contain a definition for small cellular and telecommunications,[93] which has the small business size standard of no more than 1,500 employees.[94] The Commission's fiscal year 1994 annual report indicates that, at the end of fiscal year 1994, there were 1,101,711 licensees operating 12,882,623 transmitters in the PLMR bands below 512 MHz.[95]

6. *Equipment Manufacturers*. The SBA has established a small business size standard for Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing. Under this standard, business firms are considered small if they have 750 or fewer employees.[96] Census data for 1997 indicate that, for that year, there were a total of 1,215 establishments[97] in this category.[98] Of those, there were 1150 that had employment under 500, and an additional 37 that had employment of 500 to 999. The percentage of broadcast equipment manufacturers to others in this category is approximately 22%,[99] so we estimate that the number of broadcast equipment manufacturers with employment under 500 was actually closer to 253, with an additional 8 establishments having employment of between 500 and 999.

[91] 15 U.S.C. § 632.

[92] 1992 Economic Census, U.S. Bureau of the Census, Table 6 (special tabulation of data under contract to the Office of Advocacy of the Small Business Administration).

[93] *See* 13 C.F.R. § 121.201 (NAICS Code 513322).

[94] *Id*.

[95] *See* Federal Communications Commission, 60th Annual Report, Fiscal Year 1994 at 121.

[96] 13 C.F.R. § 121.201, NAICS code 334220.

[97] The number of "establishments" is a less helpful indicator of small business prevalence in this context than would be the number of "firms" or "companies," because the latter take into account the concept of common ownership or control. Any single physical location for an entity is an establishment, even though that location may be owned by a different establishment. Thus, the numbers given may reflect inflated numbers of businesses in this category, including the numbers of small businesses. In this category, the census breaks-out data for firms or companies only to give the total number of such entities for 1997, which was 1,089.

[98] U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, "Industry Statistics by Employment Size," Table 4, NAICS code 334220 (issued Aug. 1999).

[99] *Id*. Table 5, "Industry Statistics by Industry and Primary Product Class Specialization: 1997."

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements

7. The proposed rules will not entail reporting, recordkeeping, and or third-party consultation. These changes do not contain any new or modified form, information collection, and/or record keeping, labeling, disclosure, or record retention requirements and will not increase or decrease burden hours imposed on the public.

E. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered

8. The RFA requires an agency to describe any significant, specifically small business, alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): "(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities."[100] The Commission invited public comment on alternative proposals to address the problems identified by PCIA. Specifically, the Commission sought comment on measures to minimize the impact of granting PCIA's proposals on PLMR licensees, and on waivers of the existing power limits for ATU mobile stations, which would exempt, on a case-by-case basis, PLMR licensees from coverage of the specified rules. The proposed rule changes contained herein have been analyzed with respect to the Paperwork Reduction Act of 1980.

F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules

9. None.

[100] 5 U.S.C. § 603(c)(1) – (c)(4).

APPENDIX B

PROPOSED RULES

Part 90 of Chapter 1 of Title 47 of the Code of Federal Regulations is proposed to be amended as follows:

1. The authority citation for Part 90 continues to read as follows:

Sections 4(i), 11, 303(g), 303(r), and 332(c)(7) of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 303(g), 303(r), and 332(c)(7).

2. Section 90.35 is proposed to be amended by revising paragraph (c)(48) to read as follows:

§ 90.35 Industrial Business Pool

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(c) ***

(48) Except as noted in paragraph (c)(61) of this section, operation on this frequency is limited to a maximum of 100 watts effective radiated power in accordance with the maximum ERP and reference HAAT for a specific service area radius provisions of Section 90.205 table 2.

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3. Section 90.35 is proposed to be amended by revising paragraph (c) to read as follows

§ 90.35 Industrial Business Pool

Frequency or band	Class of station(s)	Limitations	Coordinator
460.650 ……..	…… do….	48, 61, 62	
460.65625 …..	…… do….	33, 48, 61, 62	
460.6625 ……	…… do….	30, 48, 61, 62, 69	
460.66875 …..	…… do….	33, 48, 61, 62	

Frequency or band	Class of station(s)	Limitations	Coordinator
460.675 ……..	…… do….	48, 61, 62	
460.68125 …..	…… do….	33, 48, 61, 62	
460.6875 ……	…… do….	30, 48, 61, 62, 69	
460.69375 …..	…… do….	33, 48, 61, 62	
460.700 ……..	…… do….	48, 61, 62	
460.70625 …..	…… do….	33, 48, 61, 62	
460.7125 ……	…… do….	30, 48, 61, 62, 69	
460.71875 …..	…… do….	33, 48, 61, 62	
460.725 ……..	…… do….	48, 61, 62	
460.73125 …..	…… do….	33, 48, 61, 62	
460.7375 ……	…… do….	30, 48, 61, 62, 69	
460.74375 …..	…… do….	33, 48, 61, 62	
460.750 ……..	…… do….	48, 61, 62	
460.75625 …..	…… do….	33, 48, 61, 62	
460.7625 ……	…… do….	30, 48, 61, 62, 69	
460.76875 …..	…… do….	33, 48, 61, 62	
460.775 ……..	…… do….	48, 61, 62	
460.78125 …..	…… do….	33, 48, 61, 62	
460.7875 ……	…… do….	30, 48, 61, 62, 69	
460.79375 …..	…… do….	33, 48, 61, 62	
460.800 ……..	…… do….	48, 61, 62	
460.80625 …..	…… do….	33, 48, 61, 62	
460.8125 ……	…… do….	30, 48, 61, 62, 69	
460.81875 …..	…… do….	33, 48, 61, 62	
460.825 ……..	…… do….	48, 61, 62	
460.83125 …..	…… do….	33, 48, 61, 62	
460.8375 ……	…… do….	30, 48, 61, 62, 69	
460.84375 …..	…… do….	33, 48, 61, 62	
460.850 ……..	…… do….	48, 61, 62	
460.85625 …..	…… do….	33, 48, 61, 62	
460.8625 ……	…… do….	30, 48, 61, 62, 69	
460.86875 …..	…… do….	33, 48, 61, 62	
460.875 ……..	…… do….	48, 61, 62	
460.88125 …..	…… do….	33, 48, 61, 62	
460.8875 ……	…… do….	30, 48, 61, 62, 69	
460.89375 …..	…… do….	33, 48, 61, 62	
465.650 ……..	…… do….	61, 62	
465.65625 …..	…… do….	33, 61, 62	
465.6625 ……	…… do….	30, 61, 62, 69	
465.66875 …..	…… do….	33, 61, 62	

Frequency or band	Class of station(s)	Limitations	Coordinator
465.675 ……..	…… do….	61, 62	
465.68125 …..	…… do….	33, 61, 62	
465.6875 ……	…… do….	30, 61, 62, 69	
465.69375 …..	…… do….	33, 61, 62	
465.700 ……..	…… do….	61, 62	
465.70625 …..	…… do….	33, 61, 62	
465.7125 ……	…… do….	30, 61, 62, 69	
465.71875 …..	…… do….	33, 61, 62	
465.725 ……..	…… do….	61, 62	
465.73125 …..	…… do….	33, 61, 62	
465.7375 ……	…… do….	30, 61, 62, 69	
465.74375 …..	…… do….	33, 61, 62	
465.750 ……..	…… do….	61, 62	
465.75625 …..	…… do….	33, 61, 62	
465.7625 ……	…… do….	30, 61, 62, 69	
465.76875 …..	…… do….	33, 61, 62	
465.775 ……..	…… do….	61, 62	
465.78125 …..	…… do….	33, 61, 62	
465.7875 ……	…… do….	30, 61, 62, 69	
465.79375 …..	…… do….	33, 61, 62	
465.800 ……..	…… do….	61, 62	
465.80625 …..	…… do….	33, 61, 62	
465.8125 ……	…… do….	30, 61, 62, 69	
465.81875 …..	…… do….	33, 61, 62	
465.825 ……..	…… do….	61, 62	
465.83125 …..	…… do….	33, 61, 62	
465.8375 ……	…… do….	30, 61, 62, 69	
465.84375 …..	…… do….	33, 61, 62	
465.850 ……..	…… do….	61, 62	
465.85625 …..	…… do….	33, 61, 62	
465.8625 ……	…… do….	30, 61, 62, 69	
465.86875 …..	…… do….	33, 61, 62	
465.875 ……..	…… do….	61, 62	
465.88125 …..	…… do….	33, 61, 62	
465.8875 ……	…… do….	30, 61, 62, 69	
465.89375 …..	…… do….	33, 61, 62	

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